

INERTIA RING FOR SUPPRESSION OF DRIVESHAFT RADIATED NOISE

Abstract

An inertia ring is attached to a driveshaft to separate the bending mode and breathing mode of driveshaft vibrations. Separation of the two modes results in the reduction of the overall amplitude of the vibrations and reduces the noise emitted by the driveshaft.

The inertia ring may be constructed of either aluminum or steel and is secured to the driveshaft by means of a press fit or by clamping. The inertia ring is fixed at or near a point corresponding to a bending mode antinode adjacent to one end of the driveshaft.